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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,529	08/05/2003	Joseph A. Starr	1-21434	6057
46582	7590	03/03/2006		
MACMILLAN, SOBANSKI & TODD, LLC ONE MARITIME PLAZA - FOURTH FLOOR 720 WATER STREET TOLEDO, OH 43604			EXAMINER KING, BRADLEY T	
			ART UNIT	PAPER NUMBER
			3683	

DATE MAILED: 03/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/634,529	STARR ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Bradley T. King	3683	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 December 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 and 34 is/are pending in the application.
- 4a) Of the above claim(s) 6,16 and 26 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-25,27-30 and 34 is/are allowed.
- 6) ☒ Claim(s) 1-5 7-115 17-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/12/2005 has been entered.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 recites "said groove surface". It is not clear if this limitation refers to the previously recited "first groove surface" or an additional surface.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 and 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5590936.

US 5590936 discloses all the limitations of the instant claims including; a valve seat body 481, said valve seat body having a valve passageway 452 extending through a portion of said valve seat body, a groove 457 formed circumferentially in an outer surface of said valve seat body, said groove defining a first groove surface, a bore 453 extending between said groove surface and said valve passageway to provide fluid communication between said groove surface and said valve passageway; and a substantially resilient seal 487 slidably mounted about said first groove surface, said seal slidably movable between a first position substantially covering said bore and a second position exposing said bore to permit the flow of fluid within said groove to said valve passageway through said bore. See figure 8.

Regarding claim 10, see figure 7.

Claims 1-2 and 4-5 are rejected under 35 U.S.C. 102(b) as being anticipated by LeVey et al US 6298873.

US 6298873 discloses all the limitations of the instant claims including; a valve seat body 30, said valve seat body having a valve passageway 52 or 64 extending through a portion of said valve seat body, a groove 24 or 44 formed circumferentially in an outer surface of said valve seat body, said groove defining a first groove surface 22

or 45, a bore 58 or 68 extending between said first groove surface and said valve passageway to provide fluid communication between said first groove surface and said valve passageway; and a substantially resilient seal 72 or 76 slidably mounted about said groove surface, said seal slidably movable between a first position substantially covering said bore and a second position exposing said bore to permit the flow of fluid within said groove to said passageway through said bore.

Regarding claim 5, note that the first groove surface tapers to a degree and therefore requires one of the two bordering walls to be at a slightly acute angle.

Claims 1-5 and 7-8 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5762103.

US 5762103 discloses all the limitations of the instant claims including; a valve seat body 22, said valve seat body having a valve passageway 16 extending through a portion of said valve seat body, a groove 30 formed circumferentially in an outer surface of said valve seat body, said groove defining a first groove surface, a bore 28 extending between said groove surface and said valve passageway to provide fluid communication between said groove surface and said valve passageway; and a substantially resilient seal 14 slidably mounted about said first groove surface, said seal slidably movable between a first position substantially covering said bore and a second position exposing said bore to permit the flow of fluid within said groove to said valve passageway through said bore. See figures 1-2. Also note that while the normal mode of operation of the seal is a tilting movement, the seal is capable of sliding.

Regarding claim 7, note surface 40 is "about" 45 degrees.

***Allowable Subject Matter***

Claims 11-15 and 17-20 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Claims 21-25, 27-30 and 34 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to disclose an electric valve with the details of the bore extending between the first groove surface and the passageway as required by claims 11 and 21.

***Response to Arguments***

Applicant's arguments filed 12/12/2005 are moot in view of the new grounds of rejections.

Regarding US 5762103, it is maintained that the seal is capable of sliding on the groove surface. Note the claims do not require the sliding movement to be in response to any pressure or fluid flow or that the seal slide during normal operation.


***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley T. King whose telephone number is (571) 272-7117. The examiner can normally be reached on 11:00-7:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James McClellan can be reached on (571) 272-6786. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BTK

 2/21/06  
**BRADLEY KING**  
**PATENT EXAMINER**